

Program Abstract

Overview

THE INFANT HEALTH AND DEVELOPMENT PROGRAM (IHDP) was developed to enhance the cognitive, behavioral, and health status of low birth weight (LBW), premature infants. Between birth of a premature child and the age of three, program families received (1) pediatric follow-up, (2) home visits, (3) parent support groups, and (4) a systematic educational program provided in specialized child developmental centers.

The purpose of this early intervention program is to prevent later developmental problems. As such the child is the primary intervention target, although a parent (or other primary caregiver) is an essential participant in various program components. The IHDP curriculum is both center and home-based and includes activities to foster child functioning and enhance primary care giver child-rearing skills. At the end of the program, an experimental evaluation showed that IHDP had positively impacted cognitive and motor skills in participating children, particularly those from the most at-risk families and those who had been born at the "heavier" side of the low birth weight range (2001 to 2500 grams).

Staffing Requirement/ Training

In the original implementation an interdisciplinary team comprised of qualified and specially trained educational, health and social work professional staff delivered the IHDP. An educational director with a Master's or Doctorate degree oversaw the home visitation staff and the teachers working in the child development center.

The program developers recommended either two pediatric nurses *or* one pediatric nurse and one social worker to carry out the pediatric follow-up or initial phase of the program.

College graduates who had prior experience in home visiting conducted the home visitation component. All staff attended pre-service training focused on general home visiting skills and specific skills to facilitate problem-solving methods for parents.

The child development center was staffed with early childhood teachers who had at least a bachelor's degree in early childhood education and

assistant teachers with at least one year of experience working with infants. Teachers' attended a pre-service workshop including health safety, nutrition and emergency procedures, as well as a broad overview of the IHDP and its components. In addition, teachers spent 40 hours of individual preparation activities and training before the opening of the child development center.

Both the home visitors and teachers attended a three day pre-service training and on-going annual workshops to reinforce specific IHDP teaching and clinical skills.

***Program
Materials***

This EIPARDD program package contains one complete set of curriculum materials needed to implement this program including:

- 1) Program Materials Binder
- 2) The IHDP Home Visitation User's Manual
- 3) Home Visitor Guide for Implementing the Infant Health and Development Program
- 4) Reaching Goals and Solving Problems: A Strategy for Parents
- 5) Book: *Abecedarian: The Ideas, the Approach, and the Findings*
- 6) *The Creative Curriculum*^{®1} *LearningGames*[®] Booklets
- 7) Early Intervention Evidence-Based Practice Resource Guide

¹ *The Creative Curriculum*[®] is a registered trademark of Teaching Strategies, Inc. Used under license from Teaching Strategies, Inc.

Program Abstract (continued)

- Focus**
- Psychosocial risk factors
 - Risk factors during pregnancy or birth
 - Physical impairment or disadvantage
 - Cognitive or language delay or disorder
 - Autism spectrum disorders

- Delivery**
- Center-based
 - Home-based
 - Other

- Direct Participants**
- Child
 - Parent
 - Child and Parent together

- Child's Age at Start of Program**
- Pre-Birth to 12 months
 - 12 to 24 months
 - 25 to 36 months

- Duration**
- Up to 3 months
 - 4 to 12 months
 - 13 to 24 months
 - 25 to 36 months
 - More than 36 months

Program Abstract (continued)

Evaluation Design

The effectiveness of the use of the *IHDP* has been evaluated in several published studies. The initial study was the largest reported multi-site randomized clinical trial of an intensive early childhood intervention. The research design included two birth weight groups: heavier infants, weighing 2001 to 2500 grams and lighter infants weighing 2000 g and less. Two-thirds of the sample was lighter because those infants were expected to be at greater risk for developmental problems relative to the heavier infants. The 377 intervention families received for the first 3 years of life: 1) pediatric follow-up, (2) home visits, (3) parent support groups, and 4) a systematic educational program provided in specialized child development centers. The control group (n=608 families) received the same pediatric follow-up and referral services only.

The *IHDP* intervention operated in eight medical institutions in Little Rock, Arkansas; New Haven, Connecticut; Miami, Florida; Cambridge, Massachusetts; Bronx, New York; Philadelphia, Pennsylvania; Dallas, Texas; and Seattle, Washington from 1985 to 1988. It was designed as a randomized clinical trial, and the participating sites were selected through a national competitive review.

Study Participants

Participating children must have been born in one of the participating hospitals at each of the 8 sites at birth weights of less than or equal to 2500 grams and a gestational age of less than or equal to 37 weeks, and reside in a catchment area defined by distance from the early education center. Approximately half of the infants were of each gender. Mothers were on average, 25 years old and high school graduates. Approximately 53% of the sample mothers were black, 10% were Hispanics, and the remaining 37% were whites, Asians and others.

Assessments

The endpoint assessment occurred at 36 months of age for all infants during the experimental phase of the program. The following commercially distributed developmental evaluation instruments were used with trained assessors who were blinded to the child's group assignment:

- Stanford Binet Intelligence Scale Form L-M, 3rd ed., 3 years
- Bayley Scales of Infant Development (Bayley 1969)

In addition, parents were asked to complete the Child Behavior Problem Checklist (CBCL/2-3). The overall health status of the child was also a primary outcome measure and regarded as multidimensional.

Summary of Results

At 36 months of age LBW premature infants who attended IHDP showed improved cognitive development with increased IQ scores (LLBW group averaged a 6.6 point IQ increase and the HLBW averaged a 13.2 IQ increase) and decreased behavior problem scores in the intervention group relative to the pediatric follow-up group, or control condition. There were higher morbidity scores reported in the lighter born children in the intervention group than for the lighter-born children in the control group. There were no significant differences in the heavier groups.

The EIPARDD Program Package

THE IHDP was selected by a Scientist Expert Panel for inclusion in Sociometrics' *Early Intervention Program Archive to Reduce Developmental Disability (EIPARDD)*. The curriculum materials were obtained from the original developer of the program. Following acquisition of all materials, *EIPARDD* staff developed this *Program Summary*, assembled the evaluation resources, and prepared the *EIPARDD* program package. Finally, Sociometrics' archiving work was reviewed and approved by the original developer.

Contact Information

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